

Remarks

In the office action mailed June 16, 2004, the examiner rejected claims 9-22 under 35 U.S.C. § 112, second paragraph, on the ground that these claims were indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The examiner rejected claims 1-3, 5-8, 23-25, 27-31, and 31-34 under 35 U.S.C. § 103(a) as being obvious over the combination of U.S. Patent No. 6,606,630 to Gunlock in view of U.S. Patent No. 6,745,281 to Seagusa. The examiner rejected claims 4, 9-22, 26, and 32 under 35 U.S.C. § 103(a) as being obvious over the combination of Gunlock and Seagusa in view of the further combination of U.S. Patent No. 6,665,714 to Blumenau et al.

A. Section 112 Rejections

The examiner has rejected claims 9-22 for being indefinite because the term “the port login” lacks a proper antecedent basis. The preamble of claims 9 and 16 has been amended herein to change the term “the port login” to the term “a port login.” Applicants submit that this amendment cures the indefiniteness rejection of claims 9-22. Applicants respectfully submit that the rejection of claims 9-22 on indefiniteness grounds under 35 U.S.C. § 112 should be withdrawn.

B. Obviousness Rejections

1. All Claim Elements Must be Taught or Disclosed by the Combined References

Applicants submit that a prima facie case of obviousness has not been established and that a rejection of the pending claims on obviousness grounds is improper. A prima facie case of obviousness requires a showing that all of the claim limitations of the rejected claims are taught or suggested by the prior art. Manual of Patent Examining Procedure 2143 and 2143.03.

The establishment of a prima facie case of obviousness requires that *all* the claim limitations be taught or suggested by the prior art. MPEP 2143.01 (emphasis added). “All words of a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (CCPA 1970). Here, because all of the elements of the independent claims are not taught or suggested by the prior art combination identified by the examiner (Gunlock, Seagusa, and Blumenau), a prima facie case of obviousness cannot be established and the rejection of these claims should be withdrawn.

2. References Cannot Be Combined When Their Combinations Teach Away From the Claimed Invention

It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731 (Fed. Cir. 1983). MPEP 2145. Here, the Seagusa reference teaches a network and method for managing access to network resources that are markedly different from the network and method disclosed herein.

The Seagusa reference manages access to network resources at a magnetic disk device 5, which is shown in Figures 7 and 11 of Seagusa. The magnetic disk device 5 of Seagusa includes a number of port controllers 50-53, which may access a global access right management table 541 to govern the access to the logical volumes 5601-5699 of the magnetic disk device.

The architecture of Seagusa does not achieve one of the objects of the present invention, which is a network and a method for operating the network that prevents each host and host bus adapter of the network from issuing unnecessary, and ultimately unsuccessful, port login commands. The magnetic disk device of Seagusa expects to receive unnecessary, and ultimately unsuccessful, port login attempts, from the hosts of the network. The magnetic disk device of Seagusa screens out these attempts on the basis of the content of the global access right

management table 541. As such, each host 1-4 of Seagusa is not in any manner prevented from issuing port login commands, even if those port login commands are destined to storage resources for which the host is not authorized. (*See* Seagusa, col. 14, lines 1-46).

In contrast with Seagusa, the host and host bus adapters of the present invention can only issue port login commands to those storage resources for which the host or host bus adapter is authorized. This network architecture is not in any manner disclosed or suggested by Seagusa. Moreover, the examiner's attempt to combine Gunlock and Seagusa results in a combination that actually teaches away from the claimed invention. By following the teachings of Seagusa, one would be inclined to include an access rights module at or near the storage resources of the network. The placement of an access rights module at or near the storage resources of the network does not prevent the hosts and host bus adapters of the network from issuing unnecessary, and ultimately unsuccessful, port login commands. The hosts of Seagusa are free to continue to clog the network with port login commands that will never reach their destination or result in a successful port login. Because Seagusa actually teaches away from the claimed invention — which is directed to a network and method for managing port login commands at the host or host bus adapter of the network — the combination of Seagusa and Gunlock cannot form a basis for an obviousness rejection under Section 103.

3. Claims 1, 23, and 29

The examiner has rejected claims 1 (storage area network), 23 (host bus adapter), and 29 (computer system) as being obvious over the combination of Gunlock and Seagusa. Neither Gunlock nor Seagusa discloses each of the elements of amended claims 1, 23, and 29. In particular, the examiner recognizes that Gunlock does not teach the element of limiting port

logins to those target devices whose unique addresses appear on an address table. (See Office Action, page 4). Seagusa does not cure this deficiency.

Claim 1 has been amended herein to clarify that the claimed hardware address table is stored “in a memory location associated with the host bus adapter.” In addition, claim 1 is clarified by amendment herein to specify that the host bus adapter “will not attempt to perform a port login with a target device unless the unique hardware address of that target device is present on the unique hardware address table.” With respect to claims 23 and 29, the memory of claims 23 and 29 is memory of the host bus adapter.

In contrast, the global access right management table 541 of Seagusa is not stored in a memory location associated with a host bus adapter. The global access right management table 541 of Seagusa is stored in a memory location associated with the storage resource 5, and not with the host bus adapter of the host. As explained in detail in Section B.2 above, the screen function of Seagusa is performed at the storage resource, and not at the host bus adapter as is specified in claim 1. The placement of a screening function in the storage device would frustrate one of the purposes of the present invention, which is limiting the number of port login commands issued to the storage resources. Seagusa simply screens out issued commands without any regard to limiting the issuance of the port login commands. In contrast, the claimed invention sets out a network in which port login commands are screened *from issuance* at the host bus adapter. It is plain that Seagusa does not suggest or disclose a hardware address table stored “in a memory location associated with the host bus adapter.” Applicants respectfully submit that the rejection of claim 1 should be withdrawn.

For like reasons, the rejection of claims 23 and 29 should be withdrawn. The cited references do not suggest or disclose a host bus adapter having a memory for storing a

hardware address table that includes a listing of target devices with which the host bus adapter is authorized to perform a port login. The host of Seagusa is free to issue port login commands without any reference to whether the host is authorized to issue port login commands to the target device. Applicants respectfully submit that the rejection of claims 23 and 29 should be withdrawn.

4. Claims 9 and 16

The examiner has rejected claims 9 and 16 of the present application as being obvious over the combination of Gunlock, Seagusa, and Blumenau. The combination of references, however, does not disclose a method in which a host bus adapter determines whether a port login may be issued with respect to a target device.

Claim 9 has been amended herein to specify that a unique hardware address table is “stored in a memory location associated with the host bus adapter” and that “the unique hardware address table contains the unique hardware addresses of each target device that the host is authorized to access.” Claim 16 specifies that a set of available target devices are included in a unique hardware address table and that “the host bus adapter will not perform a port login with a target device unless the unique hardware address of the target device is present on the unique hardware address table.” Thus, the methods of claims 9 and 16 involve a host bus adapter that limits the issuance of port login commands to those target devices that are authorized for access by the host. The combination of Gunlock, Seagusa, and Blumenau does not disclose this step or functionality.

The examiner points to Seagusa for the disclosure of limiting access to authorized devices. This disclosure, however, cannot be found in Seagusa. The claimed inventions of claims 9 and 16 specify that the host bus adapter limits the issuance of port login commands to

port login commands that are directed to authorized target devices. Seagusa does not include any disclosure that would limit the ability of hosts to issue port login commands. In contrast, Seagusa does not limit the issuance of port login commands. Each host in Seagusa is free to issue port login commands, which are subsequently screened at the storage resource of Seagusa. This functionality of Seagusa is directly contrary to one of the express purposes of the present invention, which is limiting the issuance of port login commands by each host of the network.

The combination of Gunlock, Seagusa, and Blumenau plainly does not disclose or suggest a method for managing access to storage resources of a network in which the host bus adapter limits the issuance of port login commands to those target devices that are identified as being available or authorized for the receipt of port login commands from the host bus adapter. Applicants respectfully submit that the rejection of claims 9 and 16 should be withdrawn.

5. Claims 2-8, 10-15, 17-22, 24-28, and 30-34

Dependent claims 2-8, 10-15, 17-22, 24-28, and 30-34 will not be discussed individually herein, as each of these claims depends, either directly or indirectly, from an otherwise allowable base claim. Applicants submit that the rejection of claims 2-8, 10-15, 17-22, 24-28, and 30-34 should be withdrawn.

Conclusion

Applicants respectfully submit that pending claims 1-34 of the present invention are allowable. Applicants respectfully request that the rejection of these claims be withdrawn and that these claims be passed to issuance.

Respectfully submitted,



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